

Appl. No. 10/647,170
Reply to Office Action of March 17, 2005

REMARKS/ARGUMENTS

Applicants affirm the election of claims 1-12.

Claims 1-12 are rejected under 35 USC 112. To avoid the rejections, claims are combined and amended as follows:

Claim 1 combines original claim 1 with claim 2, and has been amended as suggested by the Examiner. Claim 6 combines original claim 6 with claim 7, and has been amended as suggested by the Examiner. Claims 11 and 12 have been amended in the same manner as Claims 1 and 6. Claims 3 and 8 are supported by description on page 17, line 17 to page 23, line 4 from the bottom of the specification.

Claims 1, 2, 6, 7, 11 and 12 are also rejected under 35 U.S.C. 102(b) as being anticipated by SMITH (4,394,403). The Examiner states, "Smith discloses compositions comprising an oxetane compound of the formula set forth in column 6, lines 21-38, which corresponds to the formula set forth in claim 1 or in claim 6 wherein the R groups are selected from hydrogen, alkyl, fluoroalkyl or aryl groups."

Appl. No. 10/647,170
Reply to Office Action of March 17, 2005

Reconsideration is requested in view of the following discussion of significant differences between the invention as claimed and Smith.

The present invention is distinguished from Smith in that there are limitations in which in the oxetane compound I of the formula set forth in claim 1, R_3 , R_4 , R_5 and R_6 are not simultaneously hydrogen atoms and the longer C-O bond distance of the two C-O bond distances is from 0.1464 to 0.1500 nm; and in the oxetane compound I' of the formula set forth in claim 6, R_3 , R_4 , R_5 and R_6 are not simultaneously hydrogen atoms, and the longer C-O bond distance of the two C-O bond distances is from 0.1435 to 0.1461 nm and the oxygen atom has a charge of from -0.330 to -0.281.

Smith only broadly discloses an oxetane compound of the formula set forth in column 6, lines 21-38, wherein the R groups are selected from hydrogen, alkyl, haloalkyl, alkoxy, aryloxy, aryl or acyloxy, and Smith does not positively disclose an oxetane compound of the formula set forth in claim 1 or in claim 6, i.e., an oxetane compound wherein in the Smith formula, R_3 , R_4 , R_5 , R_6 , R_7 and R_8 are selected from hydrogen, alkyl, haloalkyl or aryl, provided that R_3 , R_4 , R_7 and

Appl. No. 10/647,170
Reply to Office Action of March 17, 2005

R₈ are not simultaneously hydrogens. Further, Smith is silent about C-O bond lengths in the oxetane compounds or charge on the oxygen atom.

Concerning bond lengths, the Examiner further notes that

"Smith does not mention C-O bond lengths in the oxetane compounds or charge on the oxygen atom, however, since the species of the disclosed compounds and species of the claimed compounds overlap, it would be expected that these properties would be inherent to the species disclosed, in the absence of evidence to the contrary."

In order to show that these properties would not be inherent in Smith, the C-O bond lengths and charge on the oxygen atom of the exemplified oxetane compound disclosed in Smith were measured. Smith does not disclose in detail examples of the oxetane compound of the formula set forth in column 6, lines 21-38. Smith discloses only one exemplified oxetane compound (hereinafter referred to as Oxetane compound 31 of Smith) in Example No. 31 (column 11) of the Smith Examples. Thus, the C-O bond lengths and charge on the oxygen atom of Oxetane compound 31 of Smith were measured, and shown in Table I of an executed DECLARATION enclosed herewith.

As is apparent from Table I of the DECLARATION, the C-O bond distance in the invention and charge of the oxygen atom of

Appl. No. 10/647,170
Reply to Office Action of March 17, 2005

Oxetane compound 31 of Smith fall outside the claimed range, and therefore, the claimed range of the C-O bond distance in the invention and charge of the oxygen atom would not have been inherent in Smith.

Applicants note that for an inherent anticipation inherency may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. *Hansgirk v. Kemmer*; 40 U.S.P.Q. 665, 667 (C.C.P.A. 1939); *In re Olerich and Divigard*, 212 U.S.P.Q. 323,326 (C.C.P.A. 1981).

In view of the above, it is submitted that there is no certain inherency, and therefore, claims 1, 2, 6, 7, 11 and 12 are not anticipated by Smith (USP 4,394,403).

Claims 1-4 and 6-9 are rejected under 35 U.S.C. 102(e) as being anticipated by SASAKI et al (6,794,451). The Examiner states,

"Sasaki et al disclose compositions comprising an oxetane compound of formulas 5, 3 or 7 set forth in column 5, lines 1-22, and column 6, lines 8-49, which corresponds to the formula set forth in claim 1 or in claim 6 wherein the R groups are selected from hydrogen, alkyl, or aryl groups."

Appl. No. 10/647,170
Reply to Office Action of March 17, 2005

Similar to the distinction over Smith, the present invention is distinguished from Sasaki et al. in that there are limitations in which in the oxetane compound I of the formula set forth in claim 1, R₃, R₄, R₅ and R₆ are not simultaneously hydrogen atoms and the longer C-O bond distance of the two C-O bond distances is from 0.1464 to 0.1500 nm; and in the oxetane compound I' of the formula set forth in claim 6, R₃, R₄, R₅ and R₆ are not simultaneously hydrogen atoms, and the longer C-O bond distance of the two C-O bond distances is from 0.1435 to 0.1461 nm and the oxygen atom has a charge of from -0.330 to -0.281. Sasaki et al broadly disclose an oxetane compound of formula 5, wherein in formula 5, R₁ to R₆ denote hydrogen atoms or hydrocarbon atoms, which may have a substituent (see column 5, lines 1-22), and Sasaki et al do not positively disclose an oxetane compound of the formula set forth in claim 1 or in claim 6, i.e., an oxetane compound wherein in Sasaki et al formula 5, R₁ to R₆ denote hydrogen atoms or hydrocarbon groups, provided that R₁, R₂, R₃ and R₄ are not simultaneously hydrogen atoms. Further, Sasaki et al are silent about C-O bond lengths in the oxetane compounds or charge on the oxygen atom.

Appl. No. 10/647,170
Reply to Office Action of March 17, 2005

As with Smith, the Examiner noted that

"Sasaki et al do not mention C-O bond lengths in the oxetane compounds or charge on the oxygen atom, however, since the species of the disclosed compounds and species of the claimed compounds overlap, it would be expected that these properties would be inherent to the species disclosed, in the absence of evidence to the contrary."

In order to show that these properties would not be inherent in Sasaki et al, the C-O bond lengths and charge on the oxygen atom of the exemplified oxetane compound disclosed in Sasaki et al were measured. Sasaki et al disclose, as a particularly preferable monomer, a cyclic ether represented by formula 3 (column 6, lines 8-27), and disclose, as specific examples of the compound represented by formula 3, Oxetane compound OXT-212, in which $R_7=R_8=H$, $R_{10}=\text{ethyl}$, $R_9=2\text{-ethylhexyl}$, and $X=\text{oxygen}$, and an Oxetane compound OXR-12, which is represented by formula 7 (column 6, lines 28-31). Thus, the C-O bond lengths and charge on the oxygen atom of Oxetane compound OXT-212 and Oxetane compound OXR-12 of Sasaki et al were measured, and shown in Table II of the DECLARATION. As is apparent from Table II of the DECLARATION, the C-O bond distance in the invention and charge of the oxygen atom of Oxetane compounds OXT-212 and OXR-12 of Sasaki et al fall outside the claimed range, and therefore, the claimed

Appl. No. 10/647,170
Reply to Office Action of March 17, 2005

range of the C-O bond distance in the invention and charge of the oxygen atom would not have been inherent in Sasaki et al. This is not a "certain" inherent anticipation.

In view of the above, Claims 1-4 and 6-9 are not anticipated by SASAKI et al (6,794,451).

Claims 1-2 and 6-7 are rejected under 35 U.S.C. 102(e) as being anticipated by US Publication No. 2004/0023157 (FEIRING et al). The Examiner states, "Feiring et al disclose compositions comprising an oxetane compound of formula II 5, 3 or 7 set forth in paragraph [0016] to [0017], [0031] and examples 1 and 2, which corresponds to the formula set forth in claim 1 or in claim 6 wherein the R groups are selected from fluoroalkyl, hydrogen, or alkyl groups." However, Feiring et al do not disclose an oxetane compound of the formula set forth in claim 1 or in claim 6, i.e., an oxetane compound wherein in the Feiring et al oxetane compound of formula II set forth in paragraph [0016] to [0017], [0031] and examples 1 and 2, the oxetane ring and the organic group are combined through an oxy group where a substituent corresponding to R₃, R₄, R₅ and R₆ in the claimed formula is organic group oxy (i.e., organic moiety-O-). In the formula in claim 1 or 6, R₃, R₄, R₅ and R₆ are limited to a hydrogen atom, a fluorine atom, an

Appl. No. 10/647,170

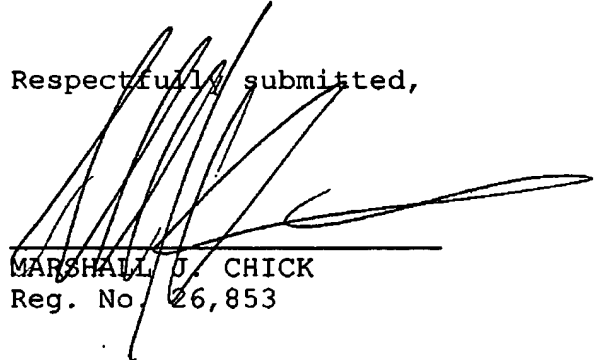
Reply to Office Action of March 17, 2005

alkyl group having from 1 to 6 carbon atoms, a fluoroalkyl group having from 1 to 6 carbon atoms, an allyl group, an aryl group, a furyl group or a thienyl group. In view of the above, Claims 1-2 and 6-7 are not anticipated by Feiring et al.

In view of the above, it is submitted that the present invention is not shown or suggested by the cited art. Withdrawal of the rejections and allowance of the application are respectfully requested.

Frishauf, Holtz, Goodman
& Chick, P.C.
220 Fifth Ave., 16th Floor
New York, NY 10001-7708
Tel. No. (212) 319-4900
Fax No.: (212) 319-5101
MJC/ld

Respectfully submitted,



MARSHALL J. CHICK
Reg. No. 26,853

Enc. Executed DECLARATION UNDER 37 CFR 1.132 of
TOSHIYUKI TAKABAYASHI dated May 13, 2005